Turning Waste into Profits and Jobs

Composting eases garbage disposal problems for cities...

Challenge

The residents of Sri Lanka's commercial capital Colombo, discard about 600 tons of municipal solid waste (MSW) per day, and the issue of where to put it has plagued the local government for many years. The open dump at "Bloemendhal" is where the waste ends up leaving the city with a "smoky mountain" of garbage, with a number of social and health issues.

Initiative

In 2000, USAID/US-AEP arranged for Colombo Municipal Council staff

and some private sector investors to attend a trade show on solid waste management in the USA, where they were exposed to technical aspects, and most importantly the American system of "tipping fees" paid by the cities to the private sector for waste management. After the visit, the City of Colombo expanded outsourcing of solid waste management services and issued a tipping fee based longterm contract for composting MSW. Burns Environmental and Technologies Ltd (BETL) won the contract and invested Rs. 600 million (\$ 6 million) in a facility to sustainably treat biodegradable wastes and contaminants and to maximize resource recovery by producing agriculture-grade compost.

In November 2002, USAID/US-AEP sought the assistance of the University of Minnesota to improve the composting process managed by BETL, as the quality of the compost was key to ensure marketability. Prof. Thomas Halbach, an extension educator, studied the system, recommended

modifications and identified equipment to make good quality compost. In 2004, US-AEP donated field equipment and a compost quality testing laboratory to BETL through the City of Colombo to ensure that the compost meets required standards.

Today, the BETL plant can process about 300 tons of decomposed waste and produce about 30 tons of compost per day. This compost is sold successfully, to paddy, tea and vegetable crops producers, sometimes as special blends with added chemical fertilizers.

Results

This public-private partnership is helping to reduce waste going into open dump sites that are often associated with health risks and pollution. It converts the waste into compost, a valuable soil conditioner that helps to nourish and regenerate agricultural lands by minimizing erosion, increasing microbial activity and retaining moisture in the soil. It also increases the efficiency (use) of costly imported chemical fertilizers. The BETL facility is one of the largest in South Asia and now it composts waste from Colombo and two surrounding suburbs (Kaduwela and Kelaniya). BETL plans to expand operations to accommodate recycling of non-biodegradable materials and to produce energy from waste.



"I am proud that Sri Lanka has one of the largest factories producing compost in South Asia. This environmentally-friendly project was a success largely due to the support from USAID. With their help we were able to produce compost of a very high standard."

Sumith Jayawardena, General Manager, BETL